The following listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A method for determining whether a molecule affects the function or activity of a sterol biosynthesis pathway in a S. cerevisiae cell comprising:

(a) contacting said cell with, or recombinantly expressing within said cell, said molecule; and

(b) determining the amount of ~~whether~~ RNA expression or protein expression ~~in said cell~~ of a target polynucleotide sequence in said cell ~~is changed in step (a) relative to the expression of said target polynucleotide sequence in the absence of said molecule~~, said target polynucleotide being a sequence operatively linked to a promoter native to S. cerevisiae gene YMR325W, or a YMR325W promoter sequence homolog comprising one or more nucleotide substitutions, additions or deletions that ~~do~~ does not effect the ability of the sequence to promote transcription of said operatively linked sequence in substantially the same manner as native YMR325W that does not comprise said one or more nucleotide substitutions, additions or deletions ; ~~and~~

~~(c) determining that said molecule affects the function or activity of said sterol biosynthesis pathway if expression of said target polynucleotide is changed, or determining that said molecule does not affect the function or activity of said sterol biosynthesis pathway if expression of said target polynucleotide sequence is unchanged.~~

wherein an altered level of RNA expression or protein expression of said polynucleotide in said cell contacted with said molecule as compared to a cell not contacted with said molecule indicates that said molecule does affect the function or activity of said sterol biosynthesis pathway.

2. (currently amended) The method of claim 1, wherein said target polynucleotide sequence comprises a marker gene~~; wherein step (b) comprises determining whether the RNA expression or protein expression of said marker gene is changed in step (a) relative to the expression of said marker gene in the absence of the molecule; and wherein step (c) comprises determining that said molecule affects the function or activity of said sterol biosynthesis pathway if expression of said marker gene is changed, or determining that said molecule does not affect the function or activity of said sterol biosynthesis pathway if expression of said marker gene is unchanged~~.

3. (currently amended) The method of claim 1, wherein said altered level of RNA expression or protein expression of said polynucleotide in said cell contacted with said molecule is deceased as compared to a cell not contacted with said molecule ~~which is a method for determining whether said molecule inhibits sterol biosynthesis such that said cell contacted with the molecule exhibits a lower level of sterol than a second cell which is not contacted with said molecule~~.

4. (currently amended) The method of claim 1, wherein said target polynucleotide is operatively linked to a promoter native to S. cerevisiae gene YMR325W

~~step (b) comprises determining whether RNA or protein expression of a target polynucleotide sequence regulated by a promoter native to YMR325W is changed~~.

5. (currently amended) The method of claim 1, wherein ~~step (b) comprises determining whether~~ RNA expression of said polynucleotide is changed in said cell contacted with said molecule as compared to a cell not contacted with said molecule.

6. (currently amended) The method of claim 1, wherein ~~step (b) comprises determining whether~~ protein expression of said polynucleotide is changed in said cell contacted with said molecule as compared to a cell not contacted with said molecule.

7. (currently amended) The method of claim 1 wherein said altered level of RNA expression or protein expression of said polynucleotide in said cell contacted with said molecule is increased as compared to a cell not contacted with said molecule ~~which is a method for determining whether said molecule inhibits sterol biosynthesis, and wherein step (c) comprises determining that said molecule inhibits sterol biosynthesis if expression of said target polynucleotide sequence in step (a) is increased relative to expression of said target polynucleotide sequence in the absence of said molecule~~.

8. (original) The method of claim 1, wherein the S. cerevisiae cell is a cell that recombinantly expresses said target polynucleotide sequence.

9. (currently amended) The method of claim 1, wherein said contacting ~~step (a) comprises contacting said cell with said molecule, and wherein step (a)~~ is carried out in a liquid high throughput-like assay.

10. (currently amended) The method of claim 1, wherein said contacting ~~step (a) comprises contacting said cell with said molecule, and wherein step (a)~~ is carried out in a solid plate halo assay.

11. (currently amended) The method of claim 1, wherein said contacting ~~step (a) comprises contacting said cell with said molecule, and wherein step (a)~~ is carried out in an agar overlay assay.

12. (canceled)

13. (currently amended) A method for monitoring activity of a sterol biosynthesis pathway in a S. Cerevisiae cell exposed to a molecule comprising:

(a) contacting said cell with, or recombinantly expressing within said cell, said molecule; and

(b) determining the amount of ~~whether~~ RNA expression or protein expression ~~in said cell~~ of a target polynucleotide sequence in said cell ~~is changed in step (a) relative to expression of said target polynucleotide sequence in the absence of said molecule~~, said target polynucleotide sequence being regulated by a promoter native to a S. cerevisiae YMR325W gene or a YMR325W promoter sequence homolog-comprising one or more nucleotide substitutions, additions or deletions that ~~do~~ does not effect the ability of the sequence to promote regulated transcription of said target polynucleotide sequence in substantially the same manner as native YMR325W that does not comprise said one or more nucleotide substitutions, additions or deletions; ~~and~~

~~(c) determining that the activity of the sterol biosynthesis pathway in said cell is changed if expression of said target polynucleotide is determined to be changed in step (b), or determining that the activity of the sterol biosynthesis pathway in said cell is unchanged if expression of said target polynucleotide is determined to be unchanged in step (b).~~

wherein an altered level of RNA expression or protein expression of said polynucleotide in said cell contacted with said molecule as compared to a cell not contacted with said molecule indicates that said function or activity of said sterol biosynthesis pathway is altered.

14. (canceled)

15. (currently amended) The method of claim 13, wherein said cell is contacted with said molecule ~~step (a) comprises contacting said cell with said molecule~~.

16. (canceled)

17. (currently amended) The method of claim 13, wherein said molecule is recombinantly expressed in said cell ~~step (a) comprises recombinantly expressing within said cell said molecule~~.

18. (canceled)

19. (currently amended) The method of claim 13, wherein said altered level of RNA expression or protein expression of said polynucleotide in said cell contacted with said molecule is increased as compared to a cell not contacted with said molecule indicates ~~step (b) comprises determining that said expression is increased, and step (c) comprises determining~~ that the activity of said sterol biosynthesis pathway is inhibited.

20. (currently amended) The method of any of claims ~~claim~~ 13, 15, 17, or 19, wherein said target polynucleotide sequence comprises S. cerevisiae YMR325W.

21. (currently amended) A method for identifying a molecule that modulates expression of a sterol biosynthesis pathway target polynucleotide sequence comprising:

(a) recombinantly expressing in a S. cerevisiae cell, or contacting a S. cerevisiae cell with, at least one candidate molecule; and

(b) measuring RNA or protein expression ~~in said cell~~ of a target polynucleotide sequence in said cell, said target polynucleotide sequence being regulated by a promoter native to a S. cerevisiae YMR325W gene or a YMR325W promoter sequence homolog-comprising one or

more nucleotide substitutions, additions or deletions that ~~do~~ does not effect the ability of the sequence to promote regulated transcription of said target polynucleotide sequence in substantially the same manner as native YMR325W that does not comprise said one or more nucleotide substitutions, additions or deletions;

wherein an increase or decrease in expression of said target polynucleotide sequence relative to expression of said target polynucleotide sequence in the absence of said candidate molecule indicates that said candidate molecule modulates expression of said sterol biosynthesis pathway target polynucleotide sequence.

22. (previously amended) The method of claim 1 wherein said promoter comprises SEQ ID NO: 3 or a SEQ ID NO: 3 homolog-comprising one or more nucleotide substitutions, additions or deletions that do not effect the ability of the sequence to promote transcription of said operatively linked sequence.

23. (original) The method of claim 2 wherein said marker gene is selected from the group consisting of green fluorescent protein, red fluorescent protein, blue fluorescent protein, luciferase, LEU2, LYS2, ADE2, TRP1, CAN1, CYH2, GUS, CUP1 and chloramphenicol acetyl transferase.

24. (canceled)

25. (original) The method of claim 1, wherein said molecule is selected from the group consisting of natural products, proteins, and small molecules.

26. (original) The method of claim 25, wherein said molecule is purified.

27. (original) The method of claim 25, wherein said molecule is not substantially purified.

28. (currently amended) The method of claim 1, wherein said contacting comprises incubating said cell with a second cell that produces said molecule ~~step (a) comprises contacting said cell with a second, test cell, wherein said test cell produces said molecule~~.

29. (currently amended) The method of claim 28, wherein said molecule is released by said ~~test~~ second cell.

30. (currently amended) The method of claim 28, wherein said molecule is secreted by said ~~test~~ second cell.